SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR OPTIMIZATION OF A SCENE GRAPH

ABSTRACT OF THE DISCLOSURE

The invention described herein is a system, method, and computer program product for optimization of a scene graph. The system includes an optimization base that contains a set of specific atomic optimizations. The system also includes an optimization registry that lists each atomic optimization, parameters associated with each optimization, and priority information relating to the necessary order in which optimizations must be performed. The system also includes an optimization manager which creates, configures, and applies an optimization process to an input scene graph. The system further includes an optimization configuration module for accepting user input to the optimization process. The method includes the steps of receiving an input scene graph, creating the optimization process, applying the optimization process to the input scene graph, and post-optimization processing. The optimization process can be performed for any of a number of purposes, such as the enhancement of scene graph traversal time, the enhancement of drawing time, the reduction of memory usage, improved efficiency of data manipulation, and the targeting of a specific rendering platform.